

REMARKS

Claims 7-45 are now pending. Favorable reconsideration is respectfully requested.

The present invention relates to a water-based ink composition, comprising:

a polybasic acid selected from the group consisting of malonic acid, polyethylene oxide dicarboxylic acid, and glycerol dicarboxylic acid,
a water-insoluble cationic polymer,
a coloring agent, and
a monovalent acid having a water-solubility of not less than 10% by weight at 20°C,
wherein the composition contains dispersed therein water-insoluble particles comprising the cationic polymer and the coloring agent. See Claim 7.

The present invention also relates to a water-based ink composition, comprising:

a polybasic acid selected from the group consisting of malonic acid, a polyethylene oxide dicarboxylic acid, and glycerol dicarboxylic acid,
a water-insoluble ionic polymer, and
a pigment,
wherein the composition contains dispersed therein water-insoluble particles comprising the ionic polymer and the pigment. See Claim 19.

The present invention additionally relates to a water-based ink composition, comprising:

a polybasic acid selected from the group consisting of a polyethylene oxide dicarboxylic acid and glycerol dicarboxylic acid,
a water-insoluble ionic polymer, and
a coloring agent. See Claim 30.

The rejection of Claims 1 and 2 under 35 U.S.C. §102(b) over Ma et al. is respectfully traversed. Ma et al. do not describe malonic acid, polyethylene oxide dicarboxylic acid, or glycerol dicarboxylic acid as the polybasic acid. Accordingly, that reference fails to describe the claimed ink composition. Therefore, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 1, 3-4, and 6 under 35 U.S.C. §102(a) over EP 1088863 (EP '863) is respectfully traversed. EP '863 does not describe malonic acid, polyethylene oxide dicarboxylic acid, or glycerol dicarboxylic acid as the polybasic acid. Accordingly, that reference fails to describe the claimed ink composition. Therefore, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 1 and 4 under 35 U.S.C. §102(b) over Shintani et al. is respectfully traversed. Shintani et al. do not describe malonic acid, polyethylene oxide dicarboxylic acid, or glycerol dicarboxylic acid as the polybasic acid. Accordingly, that reference fails to describe the claimed ink composition. Therefore, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 1 and 3 under 35 U.S.C. §102(e) over Ohta et al. is respectfully traversed. Ohta et al. do not describe malonic acid, polyethylene oxide dicarboxylic acid, or glycerol dicarboxylic acid as the polybasic acid. Accordingly, that reference fails to describe the claimed ink composition. Therefore, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 1-3 under 35 U.S.C. §102(e) over Parazak et al. is respectfully traversed. That reference fails to describe the claimed ink composition.

Claims 7 specifies that the composition contains dispersed therein water-insoluble particles comprising the cationic polymer and the coloring agent. Claim 20 specifies that the composition contains dispersed therein water-insoluble particles comprising the ionic polymer and the pigment. Parazak et al. fail to describe such water-insoluble particles.

Claim 30 specifies a polybasic acid selected from the group consisting of a polyethylene oxide dicarboxylic acid and glycerol dicarboxylic acid. Parazak et al. fail to describe either of those acids.

Based on the foregoing, Parazak et al. do not describe the claimed ink compositions. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 1 and 4-5 under 35 U.S.C. §102(b) over Tsutsumi et al. is respectfully traversed. Tsutsumi et al. do not describe malonic acid, polyethylene oxide dicarboxylic acid, or glycerol dicarboxylic acid as the polybasic acid. Accordingly, that reference fails to describe the claimed ink composition. Therefore, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claim 1 under 35 U.S.C. §102(b) over EP 909798 (EP '798) and EP 719846 (EP '846) is respectfully traversed. EP '798 and EP '846 do not describe malonic acid, polyethylene oxide dicarboxylic acid, or glycerol dicarboxylic acid as the polybasic acid. Accordingly, those references fail to describe the claimed ink composition. Therefore, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claim 2 under 35 U.S.C. §103(a) over EP 1088863 (EP '863) or Tsutsumi et al. either of which in view of Prasad is respectfully traversed. These references fail to suggest the claimed ink compositions. None of these references describe or suggest using malonic acid, polyethylene oxide dicarboxylic acid, or glycerol dicarboxylic acid as the

polybasic acid. Therefore, these references fail to suggest the claimed ink compositions. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claim 2 under 35 U.S.C. §103(a) over Shintani et al. or Ohta et al. either of which in view of Suzuki et al. is respectfully traversed. These references fail to suggest the claimed ink compositions.

Shintani et al., Ohta et al., and Suzuki et al. each fail to describe water-insoluble particles comprising the polymer and the coloring agent (Claims 7 and 30) or the pigment (Claim 19). In fact, Suzuki et al. explicitly states at column 7, lines 5-8, that:

A pigment used in the ink jet recording ink of the present invention has a functional group on the surface thereof, **does not contain a so-called polymer dispersing agent** and is self-dispersible in a solvent. [Emphasis added.]

Thus, Suzuki et al. explicitly describe that the ink composition described therein does not contain a polymer dispersing agent. Accordingly, these references fail to suggest the water-insoluble particles in the claimed ink compositions, and fail to suggest the claimed invention. Withdrawal of this ground of rejection is respectfully requested.

The rejection of Claim 3 under 35 U.S.C. §103(a) over Shintani et al. or Tsutsumi et al. either of which in view of Ohta et al. is respectfully traversed. These references fail to suggest the claimed ink compositions.

Shintani et al., Tsutsumi et al., and Ohta et al. each fail to describe malonic acid, polyethylene oxide dicarboxylic acid, or glycerol dicarboxylic acid as the polybasic acid. For this reason alone, those references fail to suggest the claimed ink compositions.

In addition, Claim 7 recites the specified polybasic acid and a monovalent acid having a water-solubility of not less than 10% by weight at 20°C. The cited references certainly fail to describe or suggest using a combination of the recited polybasic acid and the monovalent acid. As explained in the present specification at page 5, line 24 to page 6, line 3, the

combination of the polybasic acid and the a monovalent acid improves the dispersion stability of the ink. Shintani et al., Tsutsumi et al., and Ohta et al. taken in combination do not suggest this striking result.

Based on the foregoing, the combination of Shintani et al., Tsutsumi et al., and Ohta et al. fail to suggest the claimed ink compositions. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claim 6 under 35 U.S.C. §103(a) over Shintani et al. or Tsutsumi et al. either of which in view of either Ohta et al. or EP 719846 (EP '846) is respectfully traversed. These references fail to suggest the claimed ink compositions.

Shintani et al., Tsutsumi et al., Ohta et al., and EP '846 each fail to describe malonic acid, polyethylene oxide dicarboxylic acid, or glycerol dicarboxylic acid as the polybasic acid. For this reason alone, those references fail to suggest the claimed ink compositions.

In addition, Claim 7 recites the specified polybasic acid and a monovalent acid having a water-solubility of not less than 10% by weight at 20°C. The cited references certainly fail to describe or suggest using a combination of the recited polybasic acid and the monovalent acid. As explained in the present specification at page 5, line 24 to page 6, line 3, the combination of the polybasic acid and the monovalent acid improves the dispersion stability of the ink. Shintani et al., Tsutsumi et al., Ohta et al., and EP '846 taken in combination do not suggest this striking result.

Based on the foregoing, the combination of Shintani et al., Tsutsumi et al., Ohta et al., and EP '846 fail to suggest the claimed ink compositions. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of the claims under 35 U.S.C. §112, second paragraph, is believed to be obviated by the amendment submitted above. In rewriting the claims, the issues raised by the Examiner have been addressed. Accordingly, withdrawal of this ground of rejection is respectfully requested.

Applicants submit that the present application is in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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IN THE CLAIMS

--1-6. (Cancelled).

7-42. (New).--